



1626

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/517,240 Confirmation No.: 3978
Applicant: Morand *et al.*
Filed: October 3, 2005
TC/AU.: 1626
Examiner: Rei Tsang Shiao

Docket No.: 11982.105002 BDW002
Customer No.: 20786
Title: Napthalene derivatives which inhibit the cytokine or biological activity of microphage migration inhibitory factor (mif)

Commissioner for Patents
P. O. Box 1450
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Respectfully submitted,



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Dated: March 28, 2007
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| Group Art Unit | 1626 |
| Examiner Name | Rei Tsang Shiao |
| Attorney Docket Number | 11982.105002 BDW002 |

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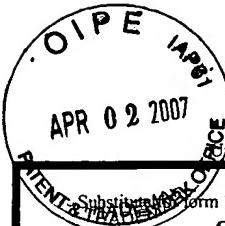
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| | AB | AKPUAKA, M.U., et al., "Methoxycarbonyl shifts in Diels–Alder adducts of methoxycarbonyl-1,4-benzoquinones," <i>J. Chem. Soc., Chem. Commun.</i> , 1982(12):686-688 (1982). | |
| | AC | BACHER, M., et al., "An essential regulatory role for macrophage migration inhibitory factor in T-cell activation," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , 93(15):7849-7854 (July 23, 1996). | |
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| | AF | BOZZA, M., et al., "Targeted disruption of Migration Inhibitory Factor gene reveals its critical role in sepsis," <i>J. Exp. Med.</i> , 189(2):341-346 (January 18, 1999). | |
| | AG | BUCALA, R., "MIF rediscovered: cytokine, pituitary hormone, and glucocorticoid-induced regulator of the immune response," <i>FASEB J.</i> , 10(14):1607-1613 (December 1996). | |
| | AH | CABRI, W., et al., "Palladium-catalyzed reduction of aryl sulfonates. Reduction versus hydrolysis and selectivity control," <i>J. Org. Chem.</i> , 55:350-353 (1990). | |
| | AI | CALANDRA, T., et al., "MIF as a glucocorticoid-induced modulator of cytokine production," <i>Nature</i> , 377(6544):68-71 (September 7, 1995). | |
| | AJ | CHAWLA., H.M., and MITTAL, R.S., "Oxidative nitration by silica gel-supported cerium(IV) ammonium nitrate," <i>Synthesis</i> (Stuttgart, Georg Thieme Verlag), 1:70-72 (1985). | |
| | AK | CONNOR, D., "Novel benzothiophene-, benzofuran-, and naphthalenecarboxamidotetrazoles as potential antiallergy agents," <i>J. Med. Chem.</i> , 35(5):958-965 (March 6, 1992). | |
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| Filing Date | October 3, 2005 |
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| Examiner Name | Rei Tsang Shiao |
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|---------------------|-----------------------|--|----------------|
| | BA | DAVID, J.R., "Delayed hypersensitivity in vitro: its mediation by cell-free substances formed by lymphoid cell-antigen interaction," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , 56(1):72-77 (July 1966). | |
| | BB | DONNELLY, S.C., et al., "Regulatory role for macrophage migration inhibitory factor in acute respiratory distress syndrome," <i>Nature Medicine</i> 3(3):320-323 (March 1997). | |
| | BC | HOVORKA, M., et al., "The oxidative cross-coupling of substituted 2-naphthols, part I: The scope and limitations," <i>Tetrahedron</i> , 48(43):9503 (1992). | |
| | BD | JUTTNER, S., et al., "Migration inhibitory factor induces killing of Leishmania major by macrophages: dependence on reactive nitrogen intermediates and endogenous," <i>J. Immunol.</i> 161(5):2383-2390 (September 1, 1998). | |
| | BE | KASSEL, O., et al., "Glucocorticoids inhibit MAP kinase via increased expression and decreased degradation of MKP-1," <i>EMBO J.</i> , 20(24):7108-7116 (December 17, 2001). | |
| | BF | LACEY, D.C., et al. "Control of fibroblast-like synoviocyte proliferation by macrophage migration inhibitory factor (MIF)," <i>Arthr. Rheum.</i> , 48(1):103-109 (January 2003). | |
| | BG | LEECH, M., et al., "Regulation of macrophage migration inhibitory factor (MIF) by endogenous glucocorticoids in rat adjuvant arthritis," <i>Arthr. Rheum.</i> , 43(4):827-833 (April 2000). | |
| | BH | LEECH, M., et al., "Involvement of Macrophage Migration Inhibitory Factor in the evolution of rat adjuvant arthritis," <i>Arthr. Rheum.</i> , 41(5):910-917 (May 1998). | |
| | BI | LEECH, M., et al., "Macrophage migration inhibitory factor (MIF) in rheumatoid arthritis: Evidence for pro-inflammatory function and regulation by glucocorticoids," <i>Arthr. Rheum.</i> , 42(8):1601-1608 (August 1999). | |
| | BJ | MEYERS, A.I., and WILLEMSSEN, J.J., "An oxazoline based approach to (S)-Gossypol," <i>Tetrahedron</i> , 54(35), 10493-10511 (August 27, 1998). | |
| | BK | MEYERS, A.I., and WILLEMSSEN, J.J., "The synthesis of (S)-(+) -gossypol via an asymmetric Ullmann coupling," <i>Chem. Commun.</i> , 1997(16):1573-1574 (1997). | |
| | BL | MIKULOWSKA, A., et al., "Macrophage migration inhibitory factor is involved in the pathogenesis of collagen type II-induced arthritis in mice," <i>J. Immunol.</i> , 158(11):5514-5517 (June 1, 1997). | |
| | BM | MITCHELL, R.A., et al., "Sustained mitogen-activated protein kinase (MAPK) and cytoplasmic phospholipase A2 activation by macrophage migration inhibitory factor (MIF). Regulatory role in cell proliferation and glucocorticoid action," <i>J. Biol. Chem.</i> , 274(25):18100-18106 (June 18, 1999). | |
| | BN | MORAND, E.F., et al., "Macrophage migration inhibitory factor (MIF): An emerging therapeutic target in rheumatoid arthritis," <i>Arthr. Rheum.</i> , 48:291-299 (2003). | |
| | BO | NEWMAN, M.S., and KARNES, H.A., "The conversion of phenols to thiophenols via dialkylthiocarbamates," <i>J. Org. Chem.</i> , 31(12):3980-3984 (December 1966). | |

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|---------------------|-----------------------|--|----------------|
| | CA | RAM, S. and EHRENKAUFER, R.E., "A general procedure for mild and rapid reduction of aliphatic and aromatic nitro compounds using ammonium formate as a catalytic hydrogen transfer agent," <i>Tetrahedron Lett.</i> , 25(32):3415-3418 (1984). | |
| | CB | ROGATSKY, I., <i>et al.</i> , "Antagonism of glucocorticoid receptor transcriptional activation by the c-Jun N-terminal kinase," <i>Proc. Natl. Acad. Sci. USA.</i> , 95(5):2050-2055 (March 3, 1998). | |
| | CC | SAA, J. M., <i>et al.</i> , "Palladium-catalyzed cross-coupling reactions of highly hindered, electron-rich phenol triflates and organostannanes," <i>J. Org. Chem.</i> , 57(2), 678-685 (January 17, 1992). | |
| | CD | SABROE, I., <i>et al.</i> , "Asthma and MIF: innately Th1 and Th2," <i>Clin. Exp. Allergy</i> , 30(9):1194-1196 (September 2000). | |
| | CE | SAMPEY, A V., <i>et al.</i> , "Macrophage Migration Inhibitory Factor (MIF) activation of rheumatoid synoviocytes," <i>Arthr. Rheum.</i> , 44:S283 (1999). | |
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| | CG | SANTOS, L L., <i>et al.</i> , "Suppression of adjuvant arthritis and synovial macrophage inducible nitric oxide by N-iminoethyl-1-omithine, a nitric oxide synthase inhibitor," <i>Inflammation</i> , 21(3):299-311 (June 1997). | |
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| | CI | TANG, X., <i>et al.</i> , "Convenient, asymmetric synthesis of enantiomerically pure 2',6'-dimethyltyrosine (DMT) via alkylation of chiral equivalent of nucleophilic glycine," <i>Tetrahedron Asymm.</i> , (14) 2917-2925 (July 28, 2000). | |
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| | CK | WEHRMEISTER, H. L., "Periodate Oxidations of Oxazolines," <i>J. Org. Chem.</i> , 26(10):3821-3824 (October 1961). | |
| | CL | WEINSTOCK, J., <i>et al.</i> , "Synthesis and dopaminergic activity of some halogenated mono- and dihydroxylated 2-aminotetralins," <i>J. Med. Chem.</i> , 29(9):1615-1627 (September 1986). | |
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| | CN | ZHAO, H., <i>et al.</i> , "Arylamide inhibitors of HIV-1 integrase," <i>J. Med. Chem.</i> , 40(8):1186-1194 (April 11, 1997). | |

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